

## Abstract of the Disclosure

A device and a method for detecting current-impressed useful signals, added to a DC supply current, for a digital alarm line security system are described.

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To operate the alarm system using high DC supply currents on the alarm line without significantly affecting the reception of the useful signals, a current bypass branch (26) containing a second current sensor element (28), a control amplifier (32), and an actuator (30) for adjusting the resistance of the current bypass branch (26) is provided in parallel to a first  
10 current sensor element (22) designed for picking up the signals, the actuator (30) being controlled by the control amplifier (32) in such a way that a constant current adjusted to a setpoint value input at the control amplifier (32) flows through the current bypass branch (26), the setpoint value being defined by a microprocessor (40) as a function of time in such a way that the current flowing through the first current sensor element (22) contains the useful  
15 signals having an essentially unreduced amplitude, and a reduced portion of the DC component of the supply current. (Figure 2)